

REMARKS

This is a full and timely response to the outstanding final Office Action mailed October 6, 2003. Upon entry of the amendments in this response, claims 1 - 16 remain pending. In particular, Applicants have canceled claims 17 - 19 without prejudice, waiver, or disclaimer. Applicants have canceled claims 17 - 19 merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these canceled claims in a continuing application, if Applicants so choose, and do not intend to dedicate the canceled subject matter to the public. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Telephone Interview

Applicants sincerely appreciate the time that the Examiner and the Examiner's supervisor spent with Applicants' attorney on October 31, 2003, during which the final rejection was discussed. Applicants appreciate the Examiner's supervisor indicating that the disclosure appears to present features that distinguish over the cited art of record. However, no agreement was reached as to the scope of claim language used to patentably define over those references. Specifically, Applicants' attorney respectfully asserted that the terms "passive stereo" and "active stereo" have been misconstrued and that the express definitions that Applicants provided in the written description for these terms have not been considered. For at least the reasons indicated below, Applicants respectfully assert that the claims are in condition for allowance.

Withdrawal of Previous Rejections

Applicants respectfully note that several previously lodged rejections no longer appear in the final rejection and, thus, have been removed. These include a double patenting rejection of the pending claims in view of co-pending application number 09/715,822, rejections under 35 U.S.C. §102 and §103 under *MacInnis* and rejections under 35 U.S.C. § 112, second paragraph, with respect to the terms “active stereo” and “passive stereo.”

Rejections under 35 U.S.C. §102

The Office Action indicates that claims 1 - 19 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Garcia*. Specifically, the Office Action indicates that independent claims 1, 11, 15 and 17 are anticipated by *Garcia*, because *Garcia* teaches: receiving the active stereo video data containing the right channel pixel data and the left channel pixel data corresponding to the image to be rendered; re-sequencing (field displacement and offsetting) the right channel pixel data and the left channel pixel data; and simultaneously outputting corresponding frames of the right channel pixel data and the left channel pixel data for displaying the image to be rendered in passive stereo. As set forth above, Applicants have canceled claims 17 – 19 without wavier, disclaimer or prejudice and respectfully assert, therefore, that the rejection as to these claims has been rendered moot. With respect to the remaining claims, Applicants respectfully assert that the rejection of these claims is improper.

In this regard, Applicants respectfully refer the Examiner’s attention to MPEP 2173.05(a), which provides:

Applicants need not confine themselves to the terminology used in the prior art, but are required to make clear and precise the terms that are used to define the invention whereby the meets and bounds of the claim invention can be ascertained. During patent examination, the pending claims must be given the broadest reasonable interpretation consistent with the specification. (citations omitted). *When the specification states the meaning that a term in a claim is intended to have, the claim is examined using that meaning, in*

order to achieve a complete exploration of the Applicant's invention and its relation to the prior art." (citations omitted). (Emphasis Added).

In the instant case, the specification expressly states the meanings that the claim terms "active stereo" and "passive stereo" are intended to convey. Therefore, Applicants respectfully assert that it is improper to attribute any other meaning to these terms during examination as such would be contrary to the intent of the "broadest reasonable interpretation" standard. Additionally, Applicants note that, at least with respect to claim 1, Applicants have recited "simultaneously outputting corresponding frames of the right channel pixel data the left channel pixel data for displaying the image to be rendered in passive stereo." Thus, even though Applicants expressly assert that the definition of "passive stereo" is clear, the additional terminology of "simultaneously outputting" further reinforces the definition of the term and is further evidence that *Garcia* has been misconstrued.

In general, *Garcia* teaches a synthesized stereoscopic imaging system and method that involves the use of a two-dimensional, single, monocular source video signal that is converted to an active stereo video signal. For instance, Applicant respectfully refers the Examiner's attention to *Garcia*, column 6, lines 17 – 32 which recites:

This is accomplished by methods including the steps of: acquiring and digitization of a two-dimensional single monocular source video signal (e.g., standard PAS, NTSC, or equivalent video); digital electronic implementation and improvements to the DeepVision process for enhancing depth information; production of two channels of electronically processed video, one alternatively to be delivered to the right eye for viewing, the other to be subsequently delivered to the left eye converting the electronically processed video signals to a frame- or field-multiplexed stereoscopic display signal; displaying the multiplexed video signal in human-viewable form on a single-screen video display; viewing the video display with glasses or the like adapted for alternate left-eye, right-eye viewing; and controlling alternate left-eye, right-eye shuttering of the glasses in synchronism with display of the frame-or field-multiplexed video signal.

As set forth above, *Garcia*'s recitation of "production of two channels of electronically processed video, one alternately to be delivered to the right eye for viewing, the

other to be subsequently delivered to the left eye,” meets Applicants’ definition of “active stereo.” Specifically, Applicants have defined this term as follows:

As utilized herein, the term “active stereo” refers to the presentation of alternating channels, *i.e.*, one channel being associated with the left eye of a viewer (the “left channel”) and the other channel being associated with the right eye of the viewer (the “right channel”), of video display. Typically, active stereo is facilitated by the use of headgear that is synchronized with a display device so that the viewer views one channel of the video display with the left eye and the other channel with the right eye.

Additionally, Applicants have defined the term “passive stereo” to refer to the presentation of simultaneous channels, *i.e.*, one channel being associated with the left eye of a viewer (the “left channel”) and the other channel being associated with the right eye of the viewer (the “right channel”), of video display. Typically, passive stereo is facilitated by the use of headgear which is configured to allow each eye of the viewer to view only one of the simultaneously displayed channels of video. In contrast, *Garcia* involves alternating outputs.

Specifically, Applicants respectfully assert that *Garcia* does not teach or otherwise disclose at least “receiving the active stereo video data . . .,” “resequencing the right channel pixel data and the left channel pixel data,” and “simultaneously outputting corresponding frames of the right channel pixel data and the left channel pixel data for displaying the image to be rendered in passive stereo,” as recited in claim 1. In fact, *Garcia* outputs active stereo after converting data from two mono signals.

Clearly, *Garcia* does not involve the use of “passive stereo” as defined by the Applicants. Further evidence that *Garcia* involves the presentation of active stereo can be found at *Garcia*, column 12, line 12 - column 13, line 58. As described therein, the video provided by *Garcia* is “viewed through synchronous electronic glasses 300, the left eye will see one image, *i.e.*, frame one with a negative spatial displacement and the right eye will see the other image, *i.e.*, frame F2, with the opposite spatial displacement.” *Garcia*, column 12, lines 29 – 34. As described at column 7, line 61 – column 8, line 14, glasses 300 are

shuttered glasses which include lenses that are individually controlled so that an observer can only see through one of the lenses at a time. This also clearly refers to use of active stereo.

Referring now to the claims, claim 1 recites:

Claim 1 recites:

1. ***A method for converting active stereo video data into passive stereo video data***, the active stereo video data containing right channel pixel data and left channel pixel data, ***the active stereo video data being configured to enable alternate output of corresponding frames of the right channel pixel data and the left channel pixel data for displaying an image to be rendered in active stereo***, said method comprising the steps of:
 receiving the active stereo video data containing the right channel pixel data and the left channel pixel data corresponding to the image to be rendered;
 re-sequencing the right channel pixel data and the left channel pixel data; and
 simultaneously outputting corresponding frames of the right channel pixel data and the left channel pixel data ***for displaying the image to be rendered in passive stereo.***
(Emphasis Added).

Applicants respectfully assert that *Garcia* does not teach or otherwise disclose at least the features emphasized above in claim 1. Specifically, Applicants respectfully assert that *Garcia* does not teach “receiving the active stereo video data . . .,” “re-sequencing the right channel pixel data and the left channel pixel data,” and “simultaneously outputting corresponding frames . . .for displaying the image to be rendered in passive stereo,” as recited in claim 1. Therefore, Applicants respectfully assert that claim 1 is in condition for allowance. Additionally, since claims 2 – 10 depend either directly or indirectly from claim 1 and, thus, incorporate all the features/limitations of claim 1, Applicants respectfully assert that these claims also are in condition for allowance. Additionally, these dependent claims recite other features/limitations which may serve as an independent basis for patentability.

Claim 11 recites:

11. *A device for converting active stereo video data into passive stereo video data, the active stereo video data containing right channel pixel data and left channel pixel data, the active stereo video data being configured to enable alternate output of corresponding frames of the right channel pixel data and the left channel pixel data for displaying an image to be rendered in active stereo*, said device comprising:

means for receiving the active stereo video data containing the right channel pixel data and the left channel pixel data corresponding to the image to be rendered;

means for re-sequencing the right channel pixel data and the left channel pixel data; and

means for simultaneously outputting corresponding frames of the right channel pixel data and the left channel pixel data *for displaying the image to be rendered in passive stereo*.

(Emphasis Added).

Applicants respectfully assert that *Garcia* does not teach or otherwise disclose at least the features emphasized above in claim 11. In particular, Applicants respectfully assert *Garcia* does not teach or otherwise disclose at least “means for receiving the active stereo video data . . . ,” “means for resequencing the right channel pixel and the left channel pixel data,” and “means for simultaneously outputting corresponding frames of the right channel pixel data and the left channel pixel data for displaying the image to be rendered in passive stereo.” Therefore, Applicants respectfully assert that the rejection is improper and that claim 11 is in condition for allowance. Additionally, since dependent claims 12 – 14 include all of the features/limitations of claim 11, Applicants respectfully assert that these claims also are in condition for allowance.

Claim 15 recites:

15. *A device for converting active stereo video data into passive stereo video data, the active stereo video data containing right channel pixel data and left channel pixel data, the active stereo video data being configured to enable alternate output of corresponding frames of the right channel pixel data and the left channel pixel data for displaying an image to be rendered in active stereo*, said device comprising:

logic configured to receive the active stereo video data containing the right channel pixel data and the left channel pixel data corresponding to the image to be rendered;

logic configured to re-sequence the right channel pixel data and the left channel pixel data; and

logic configured to simultaneously output corresponding frames of the right channel pixel data and the left channel pixel data *for displaying the image to be rendered in passive stereo.*
(Emphasis Added).

Applicants respectfully assert that *Garcia* does not teach or otherwise disclose at least the features emphasized above in claim 15. In particular, Applicants respectfully assert *Garcia* does not teach or otherwise disclose at least “logic configured to receive the active stereo video data . . . ,” “logic configured to resequence the right channel pixel and the left channel pixel data,” and “logic configured to simultaneously output corresponding frames of the right channel pixel data and the left channel pixel data for displaying the image to be rendered in passive stereo.” Therefore, Applicants respectfully assert that the rejection is improper and that claim 15 is in condition for allowance. Additionally, since dependent claim 16 includes all of the features/limitations of claim 15, Applicants respectfully assert that claim 16 also is in condition for allowance.

CONCLUSION

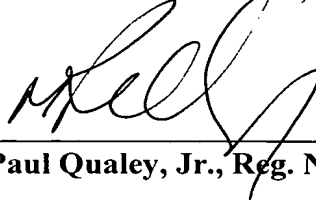
In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1 – 16 are in condition for allowance.

Applicants respectfully assert that the claim terms “active stereo” and “passive stereo” should have been previously examined in accordance with the express definitions provided in the written description by Applicants. Applicants respectfully assert, therefore, that this response raises no new issues and should be entered. Additionally, Applicants respectfully request that finality of any subsequent Office Action be removed so that Applicants can be provided with an appropriate opportunity to respond to any new arguments raised during examination.

Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

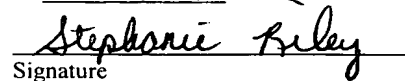
Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on 12/10/03.


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